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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,146	07/07/2003	Peter J. Cate	61134B	7714

109 7590 06/20/2005
THE DOW CHEMICAL COMPANY
INTELLECTUAL PROPERTY SECTION
P. O. BOX 1967
MIDLAND, MI 48641-1967

EXAMINER

YAO, SAMCHUAN CUA

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 06/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/614,146

Applicant(s)

CATE ET AL.

Examiner

Sam Chuan C. Yao

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. 10/171,936.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11-10-03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

502

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4-5, 7 and 9-12 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Carpenter (US 5,154,462).

As for claims 11-12, although not explicitly stated, the epoxy and polyurethane adhesive taught by Carpenter are inherently a polymerizable composition.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carpenter (US 5,154,462) as applied to claim 1 above, and further in view of the Admitted Prior Art (APA).

With respect to claims 2-3 and 6, while Carpenter teaches using a fiber reinforced plastic, Carpenter is silent on the type of plastic material which is used to form a fiber reinforced plastic. However, it would have been obvious in the art to form a bumper

Art Unit: 1733

system comprising a glass filled polypropylene as such is conventional in the art as exemplified in the teachings of APA (numbered paragraphs 7-10).

5. Claims 8 and 13-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carpenter (US 5,154,462) as applied to claim 1 and 13 above, and further in view of Pocius (US 5,686,544) and Sonnenschein et al (US 2002/0058764 A1).

With respect to claims 8 and 13-14, Carpenter is silent on whether a priming agent is applied onto a fiber-reinforced plastic surface prior to being adhesively bonded to a reinforcing member. Moreover, Carpenter does not teach the recited adhesive compositions in claims 13-14. However, it would have been obvious in the art to use an organoborane amine complex composition taught by Sonnenschein et al to adhesively bond a fiber-reinforced plastic to a reinforcing member without priming the plastic and the member in a process taught by Carpenter, because: a) it is well known in the art to use a stable organoborane amine complex to adhesively bond various substrates such as "plastic to metal", "(automotive) glass-metal bonding", etc., particularly those with "low surface energy polymers" as exemplified in a disclosure of Pocius (col. 1 lines 10-20 & 52-64; col. 3 lines 17-23); and, b) Sonnenschein et al teaches an adhesive polymerizable composition comprising a) an amine organoborane complex, b) *"one or more monomers, oligomers or polymers having olefinic unsaturation"*, and c) *"... a compound which causes the complex to dissociate ..."*, wherein the composition is useful for bonding low surface energy substrates such as automobile components without the need for using a primer, and further wherein the composition is "safe to handle, not pyrophoric, ... stable at, or

Art Unit: 1733

near, ambient temperature and therefore will not initiate polymerization at, or near ambient temperature in the absence of an initiator that causes the complex to disassociate ..." (emphasis added; abstract; numbered paragraph 2-4, 9, 12-13).

With respect to claim 15-16, see numbered paragraph 20 of the Sonnenschein et al patent.

With respect to claims 17-18, see numbered paragraph 15 of the Sonnenschein et al patent.

With respect to claim 19, see numbered paragraph 20 of the Sonnenschein et al patent.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Chuan C. Yao whose telephone number is (571) 272-1224. The examiner can normally be reached on Monday-Friday with second Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1733

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sam Chuan C. Yao
Primary Examiner
Art Unit 1733

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06-16-05